

**I CLAIM:**

- 1           1.       An electronic circuit, comprising:  
2                   circuit elements arranged in an array of rows and columns, said circuit  
3 elements being alterable in response to data stored therein and configured to shift data  
4 therebetween;  
5                   a strobe line electrically coupled to ones of said circuit elements constituting a  
6 set to provide thereto a strobe signal to cause said ones of said circuit elements in said set to  
7 shift the data to additional ones of said circuit elements outside said set; and  
8                   a strobe buffer connected between said strobe line and at least two of said  
9 circuit elements within said set to buffer the strobe signal on said strobe line and provide a  
10 buffered strobe signal to said at least two of said circuit elements.
- 1           2.       The electronic circuit of Claim 1, wherein said strobe buffer operates to  
2 amplify the strobe signal received on said strobe line and to provide the amplified strobe  
3 signal as said buffered strobe signal.
- 1           3.       The electronic circuit of Claim 1, wherein said set comprises ones of said  
2 circuit elements located in at least a portion of at least two adjacent rows of said array.
- 1           4.       The electronic circuit of Claim 1, wherein said at least two of said circuit  
2 elements within said set are ones of said circuit elements located in two adjacent rows and  
3 two adjacent columns of said array.

1           5.       The electronic circuit of Claim 1, wherein said at least two of said circuit  
2 elements within said set are ones of said circuit elements located in two adjacent rows and  
3 four adjacent columns of said array.

1           6.       The electronic circuit of Claim 1, wherein:  
2                   said strobe line is coupled to ones of said circuit elements located in a first pair  
3 of adjacent rows of said array to provide a first strobe signal to said ones of said circuit  
4 elements located in said first pair of adjacent rows; and  
5                   said electronic circuit additionally comprises an additional strobe line coupled  
6 to ones of said circuit elements located in a second pair of adjacent rows of said array to  
7 provide a second strobe signal to said ones of said circuit elements located in said second pair  
8 of adjacent rows.

1           7.       The electronic circuit of Claim 6, wherein said first strobe signal is operable to  
2 shift data from said ones of said circuit elements in said first pair of adjacent rows to said  
3 ones of said circuit elements in said second pair of adjacent rows.

1           8.       The electronic circuit of Claim 1, wherein said strobe line is coupled to ones  
2 of said circuit elements in at least a portion of at least two adjacent columns of the array.

1           9.       The electronic circuit of Claim 1, wherein said strobe line is coupled to ones  
2 of said circuit elements in at least a portion of a single row or column of the array.

1           10.      The electronic circuit of Claim 1, wherein said strobe line is coupled to at least  
2 two groups of said circuit elements positioned non-orthogonally within the array with respect  
3 to one another in the array.

1           11.     The electronic circuit of Claim 1, further comprising:  
2           a data buffer connected to at least one end of the array of said circuit elements to  
3     provide the data to said circuit elements.

1           12.     The electronic circuit of Claim 11, wherein said data buffer is configured to  
2     load data into ones of said circuit elements in at least a portion of at least two rows of the  
3     array.

1           13.     The electronic circuit of Claim 11, wherein said data buffer comprises buffer  
2     elements, each of said buffer elements loading data into a respective portion of the array, said  
3     strobe line being within a second portion of said array and being connected to clock one of  
4     said buffer elements associated with a first portion of the array to load data into the first  
5     portion of the array.

1           14.     The electronic circuit of Claim 1, wherein said circuit elements are light  
2     modulation elements, said light modulation elements including:  
3                 memory elements configured to store the data and connected to shift the data  
4     therebetween; and  
5                 pixel controllers configured to alter the state of respective ones of said light  
6     modulation elements in response to the data stored in respective ones of the memory  
7     elements.

1           15.     The electronic circuit of Claim 14, wherein each of said memory elements  
2     further includes an output node electrically coupled to said respective pixel controller and to  
3     an input node of a non-adjacent one of said memory elements.

1           16.     The electronic circuit of Claim 14, wherein said strobe buffer prevents a short  
2     in one of said at least two memory elements from disabling the other of said at least two  
3     memory elements.

1           17.     The electronic circuit of Claim 14, wherein said light modulation elements  
2     comprise liquid crystal material.

1           18.     The electronic circuit of Claim 17, wherein:  
2                   the pixel controllers include pixel electrodes configured to receive the data  
3     stored in the respective memory elements, and  
4                   said light modulation elements collectively comprise a common electrode  
5     configured to receive a common electrode signal for said light modulation elements.

1           19.     The electronic circuit of Claim 14, wherein:  
2                   said light modulation elements additionally include micromirrors, and  
3                   the pixel controllers comprise electromechanical devices configured to control  
4     the state of said respective ones of said micromirrors in response to the data stored in the  
5     respective ones of said memory elements.

1           20.     The electronic circuit of Claim 1, wherein said electronic circuit additionally  
2     comprises:  
3                   additional strobe lines; and  
4                   a shift register electrically connected to said strobe lines to apply strobe  
5     signals sequentially thereto.

- 1           21.    The electronic circuit of Claim 20, wherein said shift register implements a  
2    ripple clock.

1           22.    A method for performing photolithography, said method comprising:  
2                   loading data representing an image into light modulation elements arranged in  
3 sets;  
4                   altering ones of the light modulation elements in response to the data loaded  
5 thereinto to transfer an instance of the image onto a substrate;  
6                   applying to the light modulation elements in each one of said sets a respective  
7 strobe signal to shift the data to the light modulation elements in another of said sets, said  
8 applying comprising buffering the strobe signal among at least two of the light modulation  
9 elements within said one of said sets; and  
10                  altering ones of the light modulation elements in response to the data shifted  
11 thereinto to transfer another instance of the image onto the substrate.

1           23.    The method of Claim 22, wherein each said altering further comprises:  
2                   applying a voltage in response to the data to the change optical characteristics  
3 of the light modulation elements.

1           24.    The method of Claim 22, wherein said applying further comprises:  
2                   amplifying the strobe signal; and  
3                   providing the amplified strobe signal to the light modulation elements in said  
4 one of said sets.

1           25.     The method of Claim 22, wherein said applying further comprises:  
2                     utilizing a ripple clock to control the timing of said applying.

1           26.     The method of Claim 22, further comprising:  
2                     providing the light modulation elements arranged in an array of rows and  
3 columns, at least one of the sets comprising ones of the light modulation elements positioned  
4 non-orthogonally in the array with respect to one another.

1           27.     The method of Claim 22, wherein:  
2                     the method additionally comprises providing the light modulation elements  
3 arranged in an array of rows and columns, at least one of said sets comprising ones of the  
4 light modulation elements in at least a portion of at least two of the rows, and  
5                     said applying additionally comprises applying the strobe signal to shift the  
6 data between ones of the light modulation elements in non-adjacent ones of the rows of the  
7 array.

1           28.     The method of Claim 22, wherein:  
2                     the method additionally comprises providing the light modulation elements  
3 arranged in an array of rows and columns, at least one of said sets comprising ones of the  
4 light modulation elements in at least a portion of at least two of the columns, and  
5                     said applying additionally comprises applying the strobe signal to shift the  
6 data between ones of the light modulation elements in non-adjacent ones of the columns of  
7 the array.

1           29.     The method of Claim 22, wherein:  
2                     the method additionally comprises providing the light modulation elements  
3 arranged in an array of rows and columns; and  
4                     said loading comprises loading the data from a data buffer into the light  
5 modulation elements at one end of the array.

1           30.     The method of Claim 29, wherein said loading comprises loading the data into  
2 ones of the light modulation elements in at least a portion of at least two rows of the array.

1           31.     The method of Claim 29, wherein said loading comprises loading the data into  
2 one of the light modulation elements in at least a portion of at least two columns of the array.

1           32.     The method of Claim 29, wherein said loading comprises loading data into a  
2 first section of the array in response to a strobe signal derived from the strobe signal used to  
3 shift data in a second section of the array.